CITY OF RICHMOND
DEPARTMENT OF PUBLIC UTILITIES
FINANCIAL OPERATIONS DIVISION

February 27, 2015

Mr. Michael Murphy
Regional Director
Piedmont Regional Office
Department of Environmental Quality
4949-A Cox Road
Glen Allen, Virginia 23060

Re: City of Richmond Virginia Special Order by Consent and VPDES Permit VA0063177, 2012 Compliance and Progress Report

Dear Mr. Murphy:

In compliance with SECTION A.4 of the STATE WATER CONTROL BOARD ENFORCEMENT ACTION SPECIAL ORDER BY CONSENT (Order) ISSUED TO THE CITY OF RICHMOND, Permit No. VA0063177, effective 17 March 2005, please accept this Compliance and Progress Report (Report) describing progress made in the previous fiscal year in controlling Combined Sewer Overflows (CSOs) and plans for further implementation of the Long Term Control Plan (LTCP) in the near and long term future. This Report contains all the elements required in SECTION A.4. listed in the Order as follows:

"1. An independent rate consultant report that includes schedules and other material designed to demonstrate compliance with the above funding and spending criteria. At a minimum, the independent rate consultant's report will include:

- ***a. A schedule of sewer rates and charges in effect during the year and an explanation of any changes in the sewer rates and charges during the year;***
- ***b. A schedule that calculates the current year annual sewer bill for a residential customer with a 7 ccf average monthly sewer use and the percentage of such bill to median household income in the City;***
- ***c. A schedule detailing sewer related revenues, operation and maintenance expenses, net revenues, debt service, reserve funds and the sewer debt service coverage ratio for the previous year;***

d. A schedule detailing amounts borrowed, grants, and other sources of capital funds, and the amount of capital funds obligated for water quality projects during the previous year; and,

e. A schedule displaying the industrial rate structure and progress toward the goal of parity between industrial and residential rates.

2. An accounting of all sums expended on implementation of specific CSO projects contained in the LTCP in the previous fiscal year and in each fiscal year since the effective date of this Order.

3. An accounting of all sums obligated in the current fiscal year, and funds projected to be obligated within the next five years for implementation of specific CSO projects contained in the LTCP.

4. A narrative report of the status of each CSO project identified in the LTCP including projected completion dates contingent upon funding availability.

5. A status report of progress being made in procuring state and federal grants and low interest loans for the purpose of implementing specific elements of the LTCP."

COMPLIANCE STATEMENT

Based on information referenced in Attachment No. 1 (Exhibits 1 through 3) of this Report, we confirm to you the following:

1. Effective July 1, 2014, the sewer rates and charges were adjusted in accordance with Section A.1 of Appendix A to the CSO Special Order dated March 17, 2005. See Exhibit 1 for a summary of the sewer rate changes for the most recent five year period.
2. As of July 1, 2014, the annual sewer bill for residential customers with 7 ccf of average monthly sewer use was 1.70% of MHI for the City of Richmond. See Exhibit 2 for details. The Order requires the City to increase sewer rates such that the annual sewer bill for a typical residential customer with 7 ccf of average monthly sewer use will be at least 1.25% of MHI by March 17, 2010. As shown on Exhibit 1, rate increases over the last four years have averaged 6.0% during a period when the Consumer Price Index (CPI) has averaged 2.25% per year.
3. For the year ended June 30, 2014, the debt coverage ratio in the City's Sewer Fund is estimated to be 1.26 compared with the 1.75 maximum limit stipulated in the Special Order. See Exhibit 3 for details.
4. During the year ended June 30, 2014, the City obtained the following capital funds that were used for CSO and water quality project appropriations.

Revenue bonds	$14,598,826
Grants/Construction-in-Aid funds	10,970,659
Working capital transfers	533,921
Total	$26,103,406

Attachments No. 2 through No. 4 provides a status report on information required by the Order in Sections A.4.2. through A.4.5. Attachment No. 3 does not include the City of Richmond's flood wall operating costs.

As required by the Order, the City agrees to meet with the Department in December, 2005, and every December thereafter, to discuss the status of the CSO projects required under this Order. By way of this letter, the City requests such a meeting with the Department. Please contact this office to schedule the meeting at a mutually convenient date and time.

Sincerely,

Robert Steidel
Director Department of Public Utilities

c: James Jackson, Acting Deputy Chief Administrative Officer, City of Richmond
T. Wayne Lassiter, Deputy Director -DPU
Rosemary Green, Deputy Director - DPU
Walter Gills, Program Director, DEQ - Headquarters
Emilee Adamson, DEQ – PRO, Water Permit Writer Senior
Frank Lupini, DEQ – PRO, Senior Enforcement Specialist
David Kearney, City of Richmond
File

Attachments

Attachment No. 1
(**SECTION A.4.1.**) An independent rate consultant report and Exhibit 1, Exhibit 1a, Exhibit 1b , Exhibit 2 and Exhibit 3.

Attachment No. 2
(**SECTION A.4.2.**) An accounting of all sums expended on implementation of specific CSO projects contained in the LTCP in the previous fiscal year and in each fiscal year since 17 March 2005 and, Exhibit 4.1 and Exhibit 4.2.

Attachment No. 3
(**SECTION A.4.3.**) An accounting of all sums obligated in the current fiscal year, and funds projected to be obligated within the next five years for implementation of specific CSO projects contained in the LTCP and Exhibit 5.

Attachment No. 4
(**SECTION A.4.4. and SECTION A.4.5.**) A narrative report of the status of each CSO project identified in the LTCP including projected completion dates contingent upon funding availability and a status report of progress being made in procuring state and federal grants and low interest loans for the purpose of implementing specific elements of the LTCP.

COMPLIANCE

Based on the information included in Exhibits 1 through 3 of this report, we confirm to you the following:

1. Effective July 1, 2014, the sewer rates and charges were adjusted in accordance with Section A.1 of Appendix A to the CSO Special Order dated March 17, 2005. See Exhibit 1 for a summary of the sewer rate changes for the most recent five year period.

2. As of July 1, 2014, the annual sewer bill for residential customers with 6 Ccf of average monthly sewer use was 1.52% of MHI for the City of Richmond. See Exhibit 2 for details. The Special Order required the City to increase sewer rates such that the annual sewer bill for a typical residential customer with 6 Ccf of average monthly sewer use will be at least 1.25% of MHI by March 17, 2010. As shown on Exhibit 1, rate increases over the last four years have averaged 6.0% during a period when the Consumer Price Index (CPI) has averaged 2.25% per year.

3. For the year ended June 30, 2014, the debt coverage ratio in the City's Sewer Fund is estimated to be 1.26 compared with the 1.75 maximum limit stipulated in the Special Order. See Exhibit 3 for details.

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Revenue bonds	14,598,826
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WASTEWATER CHARGES FOR SERVICES

Per Section A.4. Requirement 1.a.
See Explanatory notes on Exhibit 1b

ith Section A.1 of Appendix A to the CSO Sp	7/1/2010	7/1/2011	7/1/2012	7/1/2013	7/1/2014
Volume Charge - Residential	2.559	2.573	2.586	5.82	6.17
Volume Charge - Commercial	3.545	3.868	4.273	5.82	6.17
Volume Charge - Industrial	3.761	4.269	4.962	5.82	6.17
Volume Charge - Municipal	3.319	3.568	3.404	5.82	6.17
Monthly Service Charge (5/8" Meter)	26.49	28.23	29.72	14.55	15.42
Private Water Supply (non-meter)	43.83	46.46	49.25	52.25	55.40
Strong Wastewater Charge (275 mg/l)	0.20910	0.22090	0.2247	0.2247	0.2247
Strong Wastewater Charge (250 mg/l)	0.25550	0.27160	0.2763	0.2763	0.2247

Exhibit 1

WASTEWATER CHARGES FOR SERVICES

Per Section A.4. Requirement 1.a.
See Explanatory notes on Exhibit 1b

	7/1/2010	7/1/2011	7/1/2012	7/1/2013	7/1/2014
Commercial and Industrial Wastewater Rates					
Monthly Service Charge (5/8" Meter)	$26.49	$28.23	$29.72	$14.55	$15.42
Monthly Service Charge (3/4" Meter)	$39.74	$42.36	$44.58	$19.41	$20.57
Monthly Service Charge (1" Meter)	$66.23	$70.59	$74.30	$29.13	$30.88
Monthly Service Charge (1-1/2" Meter)	$137.77	$144.00	$148.60	$53.43	$56.64
Monthly Service Charge (2" Meter)	$233.14	$237.18	$237.75	$82.59	$87.55
Monthly Service Charge (3" Meter)	$482.20	$468.69	$445.79	$160.34	$169.96
Monthly Service Charge (4" Meter)	$831.91	$796.22	$762.98	$247.82	$262.69
Monthly Service Charge (6" Meter)	$1,769.79	$1,648.90	$1,485.97	$490.82	$520.27
Monthly Service Charge (8" Meter)	$3,020.32	$2,738.75	$2,377.54	$782.41	$829.35
Monthly Service Charge (10" Meter)	$4,527.82	$4,037.55	$3,417.72	$1,122.60	$1,189.96
Volume Charge (Commercial)	3.545	3.868	4.273	5.820	6.170
Volume Charge (Industrial)	3.761	4.269	4.962	5.820	6.170

WASTEWATER RATE HISTORY

Explanation of Rates

1. Sewer use is typically billed at the appropriate volume rate. Generally usage is based on metered water consumption. In cases where the customer uses a private water supply, a flat rate is charged for sewer services.

2. In addition to charges for usage, customers are charged a capacity charge that is dependent on the size of the meter that is required to service the customer. Meters range from 5/8 inch to 10 inches in diameter and service charges vary from $15.42 to $1,189.96 per month.

3a. Strong wastewater charges (275mg/l) are to cover treatment costs when wastes, containing concentrations of suspended solids that exceed 275 milligrams per liter, are discharged into the City's wastewater system.

3b. Strong wastewater charges (250mg/l) are to cover treatment costs when wastes, containing concentrations of BOD (Biochemical Oxygen Demand) that exceed of 250 milligrams per liter, are discharged into the City's wastewater system.

ANNUAL WASTEWATER BILL AS A PERCENT OF MHI

Per Section A.4. Requirement 1.b.

		7 CCF 7/1/2014	6 CCF 7/1/2014
ANNUAL RESIDENTIAL WASTEWATER BILL:			
Effective rate		$6.170	$6.170
Average monthly use in ccf	x	7	6
Volume charge		43.19	37.02
Monthly service charge		15.42	15.42
Total monthly wastewater bill		58.61	52.44
	x	12	12
Annual wastewater bill		$703.32	$629.28
MEDIAN HOUSEHOLD INCOME (MHI) CALCULATION			
2013 MHI per U.S.Census Bureau American Community Survey		$40,496	$40,496
CPI index from Dec 2012 to July 2013 (229.6/233.6)	x	1.022	1.022
2014 estimated MHI		$41,387	$41,387
ANNUAL WASTEWATER BILL AS A % OF MHI		1.70%	1.52%

Notes:

1. CPI data from US Department of Labor:
   - December 2013 Index = 233.0
   - July 2014 Index = 238.3

Exhibit 2

DEBT SERVICE COVERAGE

Per Section A.4. Requirement 1.c.

	Fiscal Year 2010	Fiscal Year 2011	Fiscal Year 2012	Fiscal Year 2013	UNAUDITED Fiscal Year 2014 Estimate
REVENUES:					
Operating Revenues	59,554,971	60,496,693	64,500,207	67,767,756	73,384,652
Reimbursement of Storm Related Costs	0	0	0	0	0
Interest Income	385,172	325,438	460,374	242,312	264,937
Total Revenues	59,940,143	60,822,131	64,960,581	68,010,068	73,649,589
OPERATING & NON-OPERATING EXPENSES					
Operating Expenses	8,429,967	10,294,541	10,174,309	9,909,625	10,756,255
Salaries & Wages	11,937,031	10,389,889	12,200,677	12,545,473	12,700,113
Materials & Supplies	828,979	640,713	795,096	836,772	751,084
Rents & Utilities	2,956,475	3,430,643	4,069,515	4,823,998	3,605,173
Maintenance & Repairs	3,622,727	4,697,007	4,460,158	4,578,236	3,694,154
Taxes & Licenses	6,448,839	5,905,061	7,215,403	7,593,043	11,846,180
Total Operating & Non-Operating Expenses	34,224,018	35,357,853	38,915,158	40,287,146	43,352,959
	34,224,018	35,357,853	38,915,158	40,287,146	36,578,797
NET REVENUES	25,716,125	25,464,278	26,045,423	27,722,922	30,296,630
DEBT SERVICE					
General Obligation Bonds (100%)	4,893,963	4,141,998	4,978,817	4,989,473	5,008,332
Revenue Bonds (115%)	12,663,223	13,999,607	15,692,190	16,514,590	19,057,664
Total Debt Service	17,557,187	18,141,605	20,671,007	21,504,063	24,065,996
DEBT COVERAGE	1.46	1.40	1.26	1.29	1.26

Exhibit 3

PROJECT APPROPRIATIONS

Projects are normally appropriated at the beginning of each fiscal year when the City's Capital Improvement Program (CIP) is approved by the City Council. City staff is authorized to expend money on individual projects after project construction bids are received and approved. Since July 1, 2000, the City has expended, authorized and appropriated $846,716,379for CSO and other water quality projects. A summary of these amounts is shown below:

	CSO	Water Quality	Total
Prior to FY 2011 Expenditures	133,725,193	168,295,115	302,020,308
FY 2010 Expenditures	6,717,831	40,860,279	47,578,110
FY 2011 Expenditures	5,648,714	26,632,772	32,281,486
FY 2012 Expenditures	399,819	39,744,635	40,144,454
FY 2013 Expenditures	592,279	30,566,988	31,159,267
FY 2014 Expenditures	569,952	25,533,454	26,103,406
Unexpended Authorizations	32,617,076	162,405,272	195,022,348
Appropriations to be Authorized	39,700,000	132,707,000	172,407,000
Totals	$219,970,864	$626,745,515	846,716,379

Exhibit 4 contains an itemization of project expenditures and unexpended authorizations from July 1, 2000 to June 30, 2014. Unexpended authorizations represent the remaining budgets on projects under construction at June 30, 2014. Appropriations to be authorized represent approved CIP amounts that have not been authorized for specific projects at June 30, 2014. This occurs because project bids cannot always be received and approved in the same year that projects are appropriated.

1. CSO Projects Authorized
Per Section A.4. Requirement 2.

Project Description	Prior to FY 10 Expenditures	FY 10 Expenditures	FY 11 Expenditures	FY 12 Expenditures	FY 13 Expenditures	FY 14 Expenditures	Cumulative Expenditures	Unexpended Amount
CSO 4&5 - Hampton Street Retention Tunnel	$51,563,190	$0	$0	$0	$0	$0	$51,563,190	($63,190)
Swirl Concentrators	1,756,805	0	0	0	0	0	1,756,805	83,195
Shockoe Retention System	4,939,801	3,954,793	673,923	(231,496)	7,541	86,004	9,430,566	4,669,434
James River Monitoring	1,758,663	0	0	0	0	0	1,758,663	(358,663)
CSO Re-Evaluation Study	649,757	0	0	0	0	0	649,757	243
CSO Phase III - PPP	828,667	0	0	0	0	0	828,667	176,333
CSO Phase III - 1 Regulators 24,25,26	3,021,223	(73,436)	0	0	0	0	2,947,787	213
CSO Phase III - 2 Separation Design Fulton Bottom	27,271	5,261	711,564	(16,752)	26	0	727,370	897,630
CSO Phase III - 2 Separation Design Maury Street	92,299	1,911	2,151,818	(141,658)	0	0	2,104,370	(370)
CSO Phase III - 2 Separation Design Orleans & Nicholson Sts	69,987	389,957	2,661	0	437,380	1,417	901,402	898,598
CSO Phase III - 3 Regulators Design 12,14,39	213,278	1,416,491	748,449	4,162	51,267	138,480	2,572,127	5,582,873
CSO Phase III - 4 Lower Gillies Creek Design	157,914	36,121	0	0	0	100,532	294,567	7,588,433
CSO Phase III - 5 Oakwood In-Line Equalization	128,256	978,745	1,071,170	(79,576)	76,039	0	2,174,634	(74,634)
Shockoe Diversion Structure & Miscellaneous Improvements	114,042	7,988	289,129	865,139	20,026	161,550	1,457,874	8,742,126
Shockoe Box Lower Gate House	0	0	0	0	0	0	0	2,216,000
CSO S.O #14 - WWTP Wet Weather Primary Disinfection Facility	0	0	0	0	0	60,118	60,118	1,939,882
CSO S.O. #15 - WWTP Screening and Grit Facility.	0	0	0	0	0	21,851	21,851	1,978,149
Total CSO Projects	$65,321,152	$6,717,831	$5,648,714	$399,819	$592,279	$569,952	$79,249,747	$34,276,252
Projects Authorized prior to 07/01/2000	0	0	0	0	0	0	68,404,041	(1,659,176)
	$65,321,152	$6,717,831	$5,648,714	$399,819	$592,279	$569,952	$147,653,788	$32,617,076

Exhibit 4.1

2. Other Water Quality Projects Authorized
Per Section A.4. Requirement 2.

Project Description	Prior to FY 10 Expenditures	FY 10 Expenditures	FY 11 Expenditures	FY 12 Expenditures	FY 13 Expenditures	FY 14 Expenditures	Cumulative Expenditures	Unexpended Amount
Lift Stations Upgrade	$814,124	$0	$0	$0	$0	$0	$814.124	36,876.00
Secondary Grit Removal	78,038	0	0	0	0	0	78,038	(23,038.00)
Replace VFD's-Main/Supplemental Pumping	1,936,120	0	0	0	0	0	1,936,120	(311,120.00)
Miscellaneous Treatment Plant Upgrades	576,026	0	0	0	0	0	576,026	100,974.00
Main Pump Station Replacements	339,930	0	0	0	0	0	339,930	260,070.00
Blower Switchgear/DC System Replacements	1,300,943	0	0	0	0	0	1,300,943	99,057.00
Master Plans & Floodwall Study	1,336,037	0	0	0	0	0	1,336,037	300,963.00
Plant Projects Consolidation	1,340,130	0	0	0	0	0	1,340,130	(118,130.00)
Chlorine Slide Gate Replacements #2 thru #6	268,119	0	0	0	0	0	268,119	171,881.00
Reliability & Upgrade of Sewer Crossing	79,312	0	0	0	0	0	79,312	539,688.00
Primary Sedimentation Facility Improvements	7,124,723	0	0	0	0	0	7,124.723	277.00
Final Sedimentation Facility Improvements	7,840,559	0	0	0	0	0	7,840,559	441.00
Security Enhancements	428,785	605,208	329,110	0	0	0	1 363 103	136 897 00
Scum Study	93,236	0	0	0	0	0	93,236	(36,236.00)
Grit Study	59,941	0	0	0	0	0	59 941	(2,941 00)
Upgrade Sludge Thickening - Tenks & Gallery Ph. 1	1,938,695	1,741,784	285,240	0	0	0	3 965 719	34.281.00
Electrical Coordination Study	0	0	0	0	0	0	0	22,000.00
Structural/Mechanical Dewatering Assessment	0	0	0	0	0	0	0	83 000.00
WWTP Biological Nutrient Removal Basis of Design	199,351	0	0	0	0	0	199,351	649.00
Odor Control Basis of Design	8,713	0	0	0	0	0	8.713	16,287 00
Database Integration	86,931	0	0	0	0	0	86,931	425,069.00
Hospital Street Septage Hauler Station	0	0	0	0	0	0	0	251,000.00
Administration Building HVAC	107,802	0	0	0	0	38,380	146,182	3 718.818.00
Interim Chlorination/Dechlorination	20,912	0	0	0	0	0	20.912	(20,912.00)
Flood Protection Sealing	0	0	0	0	0	0	0	217,000.00
MIS Phase III	262,858	0	0	0	59,392	89.816	412.066	4,080.934.00
Biological Nutrient Removal Phase I	6,197,004	19,253,753	18,073,906	28,095,959	17,912,177	11 594,865	101.127.664	47,063,336.00
Maintenance Building Renovations	0	0	0	0	0	0	0	2,800,000.00
WWTP Administration Building Renovations	0	0	0	0	0	0	0	4,988,000.00
WWTP Emergency Chemical Piping	0	0	511,898	0	0	0	511,898	82,102.00
Dewatering Building Rehabilitation	0	0	0	0	5.557	255,207	260.764	2.062,236.00
Sludge Control Building #1	0	0	0	0	0	0	0	2,340.000.00
Sludge Storage Slab	0	0	0	0	0	0	0	1,433,000.00
Sludge Thickening Building	0	0	0	0	0	0	0	2,086,500.00
WWTP Integrated Plan for Projects - CWA Compliance	0	0	0	0	0	0	0	713,000.00
Primary Sludge Pump Station Upgrade	0	0	0	0	0	0	0	2,000,000.00
Secondary Clarifier Influent Valve Replacements	0	0	0	0	0	0	0	1,000,000.00
1801 Commerce Rd Operations Facility	0	0	0	0	0	184,258	184,258	2,389,241.90
Annual Sanitary Sewer Rehabilitation (City Wide)	48,535,083	10,508,025	4,112,769	7,086,662	7,645,245	9,185,060	87,072,844	50.949,873.00
Annual Sanitary Sewer Emergency Repairs (City Wide)	6,837,670	1,555,789	2,064,057	3,386,576	3,275,893	2,834,387	19,954,372	4,242,266.00
Sanitary Sewer Ancillary Projects (City Wide)	3,002,563	334,156	9,330	165,468	73,615	10,536	3,595,668	2,416.492.00
Sixth Street Sewer Repair Project	1,000,000	0	0	0	0	0	1,000,000	0.00
Lady Bird Hat Company Sewer Relocation	302,694	0	0	0	0	0	302,694	(52,694.00)
WWTP Shockoe Bottom Drainage Projects SBD 1 thru 7	10,796,200	5,828,055	144,419	19,936	1,052,065	905,601	18,746,276	3,803.724.00
WWTP Battery Park Drainage Projects/TS Ernesto	30,774,914	335,475	2,774	0	0	0	31,113,163	6,886,837.00
WWTP Dry Weather Flow Regulators	0	0	0	61,125	7,899	3,487	72,511	3,038.489.00
WWTP Trunk and Interceptor Sewer Inspection & Repair	0	677,771	880,080	710,490	516,673	375,813	3,160,827	11,239,173.00
WWTP Outfall Tide Gate Inspection and Repair	7,702	20,263	210,012	0	0	0	237,977	292,023.00
Collection System Master Plan Upgrade	0	0	9,177	218,419	18,472	56,044	302,112	647,888.00
Total Water Quality Projects Expenditures	$133,695,116	$40,860,279	$26,632,772	$39,744,635	$30,566,988	$25,533,454	$297,033,243	$162,405,272
Projects Authorized prior to 07/01/2000	34,600,000	0	0	0	0	$0	$34 600 000	$0
	$168,295,116	$40,860,279	$26,632,772	$39,744,635	$30,566,988	$25,533,454	$331,633,243	$162,405,272
Total All Projects (Sum of Exhibits 4.1 and 4.2)	$233,616,268	$47,578,110	$32,281,486	$40,144,454	$31,159,267	$26,103,406	$479 287 033	$195 022 347

PROJECT EXPENDITURES

3. CSO Capital Improvement Projects

Per Section A.4. Requirement 3.

NOTE: All amounts are in (000's)	TOTAL PRIOR AUTH.	FY15	FY16	FY17	FY18	FY19	TOTAL
Initial Basic CSO Program	$0	$0	$0	$0	$0	$0	$0
Canoe Run to Mayo's	17,866	0	0	0	0	0	$17,866
42nd Street to Canoe Run	12,204	0	0	0	0	0	$12,204
Park Hydro to Shockoe	23,420	0	0	0	0	0	$23,420
Hampton Street Retention Tunnel	51,500	0	0	0	0	0	$51,500
Swirl Concentrators	1,840	0	0	0	0	0	$1,840
Shockoe Retention	14,100	0	0	0	0	0	$14,100
Sludge Storage	3,950	0	0	0	0	0	$3,950
Sludge Grit Removal	1,750	0	0	0	0	0	$1,750
Ammonia Removal	7,600	0	0	0	0	0	$7,600
Canal Project	26,466	0	0	0	0	0	$26,466
River Monitoring	1,400	0	0	0	0	0	$1,400
CSO Re-Evaluation Study	650	0	0	0	0	0	$650
CSO Phase III PPP	1,005	0	0	0	0	0	$1,005
CSO Phase III-1 Regulators 24,25,26	2,948	0	0	0	0	0	$2,948
CSO Phase III-2 Fulton Separation	1,625	0	0	0	0	0	$1,625
CSO Phase III-2 Maury Separation	2,104	0	0	0	0	0	$2,104
CSO Phase III-2 Orl. & Nich. Separation	1,800	0	0	0	0	0	$1,800
CSO Phase III-3 Regulator 12, 14, 39	8,155	0	0	0	0	0	$8,155
CSO Phase III-4 Lower Gillies Design	783	7,100	0	3,000	3,100	0	$13,983
CSO Phase III-5 Oakwood In-Line Storage	2,100	0	0	0	0	0	$2,100
Shockoe Diversion Structure	10,200	0	0	0	0	0	$10,200
Shockoe Box Lower Gate House	2,216	0	0	0	0	0	$2,216
CSO Phase III - WWTP Primary Disinfection St	0	2,000	13,900	0	0	0	$15,900
CSO Phase III - CSO Disinfection SO #15	0	2,000	19,700	0	0	0	$21,700
	$195,682	$11,100	$33,600	$3,000	$3,100	$0	$246,482

Section A.4.4: This section requires the City to prepare "a narrative report of the status of each CSO project identified in the LTCP including projected completion dates contingent upon funding availability". The City's Long-Term Control Plan (LTCP) components of the CSO Control Plan E are described in the following table:

PROJECTS	DESCRIPTION	Milestone Dates	Status	Projected Completion Date Contingent on Funding Availability
CSO Disinfection Study	Determines the most cost effective method of disinfecting CSO discharges at the Shockoe retention basin and the City's WWTP	Due to DEQ June 30 2005	This report was submitted to DEQ on June 30 2005. The report was approved by DEQ on November 29 2005.	June 30, 2005
Phase III Program Project Plan	Develops program project plan(s) for implementing the elements of the CSO Control Plan E.	Due to DEQ December 31 2006	The Phase III Program Project Plan (PPP) submitted to DEQ on January 3, 2007 (first business day following Sunday, December 31, 2006). The PPP report was approved by DEQ on May 9, 2007.	December 31, 2006

PROJECTS	DESCRIPTION	Milestone Dates	Status	Projected Completion Date Contingent on Funding Availability
Solids and Floatable Control Regulator for CSO Outfall No. 024	Provides solids and floatables treatment for CSO Outfall 024 prior to discharge to Gillies Creek and the James River. Part of the project for Solids and Floatable Control Regulators (#III-7) in the City's Long Term Control Plan.	• Submit Preliminary Design Report June 30 2005 • Submit Final Design to DEQ 6 months after DEQ approval of PDR. • Complete construction 20 months after DEQ approval of Final Design. • Place unit into operation 30 days after construction is complete.	PDR submitted to DEQ on 30 June 2005 and additional copies submitted on 14 October 2005. The PDR was approved by DEQ on November 29 2005. The final design was submitted to DEQ on May 25 2006. The final design was approved by DEQ on June 26 2006. The City issued Notice to Proceed to the construction contractor on June 25, 2007. CSO 24 Regulator was operational on February 27, 2008 and substantially complete on March 31, 2008.	PDR: June 30, 2005 Design: May 25. 2006 Construction: March 31. 2008

PROJECTS	DESCRIPTION	Milestone Dates	Status	Projected Completion Date Contingent on Funding Availability
Solids and Floatable Control Regulator for CSO Outfall No. 026	Provides solids and floatables treatment for CSO Outfall 026 prior to discharge to Gillies Creek and the James River. Part of the project for Solids and Floatable Control Regulators (#III-7) in the City's Long Term Control Plan.	• Submit Preliminary Design Report June 30 2005 • Submit Final Design to DEQ 6 months after DEQ approval of PDR. • Complete construction 20 months after DEQ approval of Final Design. • Place unit into operation 30 days after construction is complete.	PDR submitted to DEQ on 30 June 2005 and additional copies submitted on 14 October 2005. The PDR was approved by DEQ on November 29 2005. The final design was submitted to DEQ on May 25 2006. The final design was approved by DEQ on June 26 2006. The City issued Notice to Proceed to the construction contractor on June 25, 2007. CSO 26 Regulator was operational on April 15, 2008 and substantially complete on May 12, 2008.	PDR: June 30, 2005 Design: May 25, 2006 Construction: May 12, 2008
Solids and Floatable Control Regulator for CSO Outfall No. 025	Provides solids and floatables treatment for CSO Outfall 025 prior to discharge to Gillies Creek and the James River. Part of the project for Solids and Floatable Control Regulators (#III-7) in the City's Long Term Control Plan.	• Submit Preliminary Design Report June 30 2005 • Submit Final Design to DEQ 6 months after DEQ approval of PDR. • Complete construction 20 months after DEQ approval of Final Design. • Place unit into operation 30 days after construction is complete.	PDR submitted to DEQ on 30 June 2005 and additional copies submitted on 14 October 2005. The PDR report was approved by DEQ's PRO on November 29 2005. The final design was submitted to DEQ on June 26 2006. The final design was approved by DEQ on June 26 2006. The City issued Notice to Proceed to the construction contractor on June 25, 2007. CSO 25 Regulator was operational on February 27, 2008 and substantially complete on April 24, 2008.	PDR: June 30, 2005 Design: May 25, 2006 Construction: April 24, 2008

PROJECTS	DESCRIPTION	Milestone Dates	Status	Projected Completion Date Contingent on Funding Availability
Fulton Bottom Urban Renewal Separation Project	Separates combined sewers into separate sewers for the conveyance of sanitary sewage and storm water to eliminate discharges of combined sewer overflows from this CSO area into Gillies Creek and the James River. Part of the project for Separation of Select CSO Basins (#III-5) in the City's Long Term Control Plan.	• Submit Preliminary Design Report 3 months after DEQ approval of the Phase III Program Project Plan • Submit Final Design to DEQ 6 months after DEQ approval of PDR. • Complete construction 36 months after DEQ approval of Final Design. • Place unit into operation 30 days after construction is complete.	PDR submitted to DEQ on August 9, 2007. The PDR report was approved by DEQ's PRO on August 21, 2007. Final plans and specification provided to DEQ PRO on February 21, 2008 and approved by DEQ PRO on March 19, 2008. Project construction began on June 14, 2010. Project was substantially complete on April 14, 2011.	PDR: August 9, 2007 Design: February 21, 2008 Construction: December 2010
Maury Street Separation Project	Separates combined sewers into separate sewers for the conveyance of sanitary sewage and storm water to eliminate discharges of combined sewer overflows from this CSO area into the James River. Part of the project for Separation of Select CSO Basins (#III-5) in the City's Long Term Control Plan.	• Submit Preliminary Design Report 3 months after DEQ approval of the Phase III Program Project Plan • Submit Final Design to DEQ 6 months after DEQ approval of PDR. • Complete construction 48 months after DEQ approval of Final Design. • Place unit into operation 30 days after construction is complete.	PDR submitted to DEQ on August 9, 2007. The PDR report was approved by DEQ's PRO on August 21, 2007. The final design is being prepared. Final plans and specification provided to DEQ PRO on February 21, 2008 and approved by DEQ PRO on March 19, 2008. Project construction began on June 14, 2010. Project was substantially complete on April 7, 2011.	PDR: August 9, 2007 Design: February 21, 2008 Construction: May 2011

PROJECTS	DESCRIPTION	Milestone Dates	Status	Projected Completion Date Contingent on Funding Availability
Orleans and Nicholson Street Separation Project	Separates combined sewers into separate sewers for the conveyance of sanitary sewage and storm water to eliminate discharges of combined sewer overflows from this CSO area into the James River. Part of the project for Separation of Select CSO Basins (#III-5) in the City's Long Term Control Plan.	• Submit Preliminary Design Report 3 months after DEQ approval of the Phase III Program Project Plan • Submit Final Design to DEQ 6 months after DEQ approval of PDR. • Complete construction 60 months after DEQ approval of Final Design. • Place unit into operation 30 days after construction is complete.	PDR submitted to DEQ on August 9, 2007. The PDR report was approved by DEQ's PRO on August 21, 2007. Final plans and specification provided to DEQ PRO on February 21, 2008. Project funded under ARRA/VCWRLF. Construction commenced on November 9, 2009. Final completion was in July 2010.	PDR: August 9, 2007 Design: February 21, 2008 Construction: Major portions of area completed in April 2010. Remaining small areas awaiting planned redevelopment were separated as of May 14, 2013.
Peripheral In-Line Flow Equalization at Oakwood	Captures and stores combined sewage in excess of the capacity of existing conveyance system, and conveys it to the WWTP once the conveyance and treatment capacities are restored. It attenuates peak combined sewer flows, provides a relatively constant flow into the WWTP and thus reduces the size and cost of treatment facilities.	• Submit Preliminary Design Report 3 months after DEQ approval of the Phase III Program Project Plan • Submit Final Design to DEQ 6 months after DEQ approval of PDR. • Complete construction 72 months after DEQ approval of Final Design. • Place unit into operation 30 days after construction is complete.	PDR submitted to DEQ on August 9, 2007. The PDR report was approved by DEQ's PRO on August 17, 2007. The final design is being prepared. Final plans and specification provided to DEQ PRO on February 19, 2008. Project funded under ARRA/VCWRLF. Construction commenced on November 30, 2009. The project was substantially complete and in-service as of November 19, 2010.	PDR: August 9, 2007 Design: February 19, 2008 Construction: December 2010

PROJECTS	DESCRIPTION	Milestone Dates	Status	Projected Completion Date Contingent on Funding Availability
Solids and Floatable Control Regulator for CSO Outfall No. 012	Provides solids and floatables treatment for CSO Outfall 012 prior to discharge to Almond Creek and the James River. Part of the project for Solids and Floatable Control Regulators (#III-7) in the City's Long Term Control Plan.	• Submit Preliminary Design Report 3 months after DEQ approval of the Phase III Program Project Plan • Submit Final Design to DEQ 6 months after DEQ approval of PDR. • Complete construction 84 months after DEQ approval of Final Design. • Place unit into operation 30 days after construction is complete	PDR submitted to DEQ on August 9, 2007. The PDR report was approved by DEQ's PRO on August 17, 2007. The final design is being prepared. Final plans and specification provided to DEQ PRO on February 19, 2008. Project funded under ARRA/VCWRLF. Construction commenced on November 30, 2009. The project was substantially complete and in-service as of November 19, 2010.	PDR: August 9, 2007 Design: February 19, 2008 Construction: December 2010
Solids and Floatable Control Regulator for CSO Outfall No. 014	Provides solids and floatables treatment for CSO Outfall 014 prior to discharge to Manchester Canal and the James River. Part of the project for Solids and Floatable Control Regulators (#III-7) in the City's Long Term Control Plan.	• Submit Preliminary Design Report 3 months after DEQ approval of the Phase III Program Project Plan • Submit Final Design to DEQ 6 months after DEQ approval of PDR. • Complete construction 96 months after DEQ approval of Final Design. • Place unit into operation 30 days after construction is complete	PDR submitted to DEQ on August 9, 2007. The PDR report was approved by DEQ's PRO on August 17, 2007. The final design is being prepared. Final plans and specification provided to DEQ PRO on February 19, 2008. Construction began on January 25, 2015 and is expected to be complete by late December 2015.	PDR: August 9, 2007 Design: February 19, 2008 Construction: December 2015

PROJECTS	DESCRIPTION	Milestone Dates	Status	Projected Completion Date Contingent on Funding Availability
Solids and Floatable Control Regulator for CSO Outfall No. 039	Provides solids and floatables treatment for CSO Outfall 039 prior to discharge to Gillies Creek and the James River. Part of the project for Solids and Floatable Control Regulators (#III-7) in the City's Long Term Control Plan.	• Submit Preliminary Design Report 3 months after DEQ approval of the Phase III Program Project Plan • Submit Final Design to DEQ 6 months after DEQ approval of PDR. • Complete construction 108 months after DEQ approval of Final Design. • Place unit into operation 30 days after construction is complete	PDR submitted to DEQ on August 9, 2007. The PDR report was approved by DEQ's PRO on August 17, 2007. The final design is being prepared. Final plans and specification provided to DEQ PRO on February 19, 2008 and approved on March 14, 2008. Construction bids received on October 15, 2008. Construction commenced on April 20, 2009. Project was substantially complete and in-service as of November 2009. Final completion date was January 26, 2010.	PDR: August 9, 2007 Design: February 19, 2008 Construction: January 26, 2010

PROJECTS	DESCRIPTION	Milestone Dates	Status	Projected Completion Date Contingent on Funding Availability
Lower Gillies Creek Conveyance System Project	Conveys combined sewer flows from the lower portion of the Gillies Creek CSO district to WWTP, and control these CSOs to 4 overflows per year. Conveys combined sewer flows from CSO Outfall 034 to Shockoe Retention Basin to reduce discharges of combined sewer overflows from this CSO area into the James River.	• Submit Preliminary Design Report NLT 3 months after the Board or DEQ determines that Plan E satisfies all the criteria under Section II.C.4.b.i and ii of the CSO Policy • Submit Final Design drawings and specifications to DEQ NLT nine (9) months after DEQ approval of PDR. At such time as the combined affordability and spending measures under Section A.1 and A.2 produce revenue to proceed with construction of a Functioning Element or; if sufficient funds are available at the time of completion of final drawings and specification: • Construct, start-up and test NLT 26 months after approval of the final drawings and specifications under requirement 13.b.	Engineering reports for functioning elements to separate sewersheds CSO 028A and CSO 028E, and Solids & Floatables Control Regulator for CSO 004 have been reviewed by DPU, but not yet submitted to DEQ. Design engineering for the CSO 028E separation (funded by USACE) is about 95% complete. Design engineering for the CSO 004 Regulator (also funded by USACE) is about 85% complete. Construction contract awarded for CSO 028E separation but has not yet commenced due to ongoing negotiations for a required sewer easement. Design work progressing on CSO 028A separation project as a functional element of the larger Gillies Creek Project.	2013 General Assembly appropriated $45 million is CSO grant funding which will be used to fund design and construction of functioning elements this project in advance of the Board or DEQ determination that Plan E satisfies all the criteria under Section II.C.4.b.i and ii of the CSO Policy.

PROJECTS	DESCRIPTION	Milestone Dates	Status	Projected Completion Date Contingent on Funding Availability
Wet Weather Flow Improvements at the WWTP: Solids Removal Improvements Project	Upgrades the primary treatment facilities to provide reliable treatment of up to 140 MGD wet weather flow; upgrades solids handling facilities to handle an increased solids loading associated with the increased CSO wet weather flow treatment.	• After the Board or DEQ determines that Plan E satisfies all the criteria under Section II.C.4.b.i and ii of the CSO Policy, submit Preliminary Design Report NLT 3 months after starting construction of the project under Requirement 13.c. • Submit Final Design drawings and specifications to DEQ NLT nine (9) months after DEQ approval of PDR. At such time as the combined affordability and spending measures under Section A.1 and A.2 produce revenue to proceed with construction of a Functioning Element or; if sufficient funds are available at the time of completion of final drawings and specification: • Construct, start-up and test NLT 26 months after approval of the final drawings and specifications under requirement 14.b.	New UV building for Nutrient Removal Program constructed with 3 channels for future 65 MGD primary effluent disinfection. Began preliminary design in December 2013 and is nearly complete. Will prepare final design plans and specification by early 2016.	2013 General Assembly appropriated $45 million is CSO grant funding which will be used to fund design and construction of this project in advance of the Board or DEQ determination that Plan E satisfies all the criteria under Section II.C.4.b.i and ii of the CSO Policy. PDR: April 2015

PROJECTS	DESCRIPTION	Milestone Dates	Status	Projected Completion Date Contingent on Funding Availability
Wet Weather Flow Improvements at the WWTP: Wet Weather Disinfection Facilities Project	Maximizes the wet weather treatment capacity to 300 MGD at WWTP; controls Gordon Avenue (CSO 021) outfall to 4 overflows per year. Upgrades the coarse screens, primary grit removal facilities, Main Pumping Station, and fine screens to provide reliable treatment of up to 300 MGD wet weather flow; Constructs a new wet weather disinfection facility at WWTP to treat flows up to 215 MGD (55 MGD primary effluent plus 160 MGD wet weather flow)	• After the Board or DEQ determines that Plan E satisfies all the criteria under Section II.C.4.b.i and ii of the CSO Policy, submit Preliminary Design Report NLT 3 months after starting construction of the project under Requirement 14.c. • Submit Final Design drawings and specifications to DEQ NLT nine (9) months after DEQ approval of PDR. At such time as the combined affordability and spending measures under Section A.1 and A.2 produce revenue to proceed with construction of a Functioning Element or; if sufficient funds are available at the time of completion of final drawings and specification: • Construct, start-up and test NLT 26 months after approval of the final drawings and specifications under requirement 15.b.	Began preliminary design in December 2013. Completing review of equipment technology options and facility layout options. Upon completion and approval of PDR, will proceed with final design.	2013 General Assembly appropriated $45 million is CSO grant funding which will be used to fund design and construction of functioning elements this project in advance of the Board or DEQ determination that Plan E satisfies all the criteria under Section II.C.4.b.i and ii of the CSO Policy. PDR: April 2015

PROJECTS	DESCRIPTION	Milestone Dates	Status	Projected Completion Date Contingent on Funding Availability
Wet Weather Flow Improvements at the WWTP: Expand Secondary Wet Weather Flow Treatment Project	Installs sedimentation enhancing technologies such as inclined plate settlers in the Final Sedimentation Tanks to increase the solids capture efficiency for up to 85 MGD wet weather flow; upgrades the return sludge and sludge withdrawals to increase the capacity of this facility.			

PROJECTS	DESCRIPTION	Milestone Dates	Status	Projected Completion Date Contingent on Funding Availability
Shockoe Retention Basin: Adapt Existing Basin for Pass Through Wet Weather Flow Project	Modifies Shockoe Diversion Structures, including trash rack improvement, solids removal and cleaning of Shockoe retention basin and diversion structure; Reconfigures aeration piping; Modifies retention basin bottom to slope to drain gates; Provides potential flushing system to clean the retention basin and diversion structures after every storm event.		Constructed access ramp for basin cleaning (2008-2010). Cleaned Shockoe Retention Basin and Diversion Structures (2010). Separated the Shockoe Cross-over Chamber to allow simultaneous operation of Retention Basin and East Gravity Outlet (2009-2010). Replace dry weather flow sluice gates and outlet flap gates at East and West Shockoe Diversion Structures (2011-2012). Budgeting funds and began design for replacement of bascule gates. Preliminary design for improvements trash rack system for the west diversion structure nearing completion.	
Shockoe Retention Basin: Shockoe Retention Basin 15 MG Expansion Project	Expands the Shockoe Retention Basin by 15 MG; Provides flushing system; Relocates outfall to east end of retention basin; Provides access for servicing and mechanically cleaning the retention basin.			

PROJECTS	DESCRIPTION	Milestone Dates	Status	Projected Completion Date Contingent on Funding Availability
Shockoe Retention Basin: Shockoe Wet Weather Disinfection Facility Project	Provides disinfection for the new Shockoe outfall CSOs to decrease bacterial loading to the James River by an 80% event mean reduction			

Section A.4.5. This section requires the City to prepare "a status report of progress being made in procuring state and federal grants and low interest loans for the purpose of implementing specific elements of the LTCP". The City's progress report on procuring grants and low interest loans is summarized in the following table:

Program Area	Grants			Loans	
	Virginia	EPA	Army Corps of Engineers	Virginia Clean Water Revolving Loan Fund	Other
Combined Sewer Overflow (CSO), Combined Sewer System (CSS)	Virginia CSO Matching Fund: • FY 06: $2,000,000.00 • FY 07: $3,750,000.00 • FY 08: $3,050,000.00 • FY 09: $1,500,000.00 • FY 14: $45,000,000	• EPA FY 2003 & 2004 Appropriations Act Grant for the City of Richmond CSO Program $1,638,700.00	• FY2008 Consolidated Appropriations Act (Public Law 110-161): $280,000 for the Richmond CSO Design/Studies (required a $93,000 City match)	• FY 2007: Shockoe CSO Retention Basin Access Ramp $4,316,181.00 • FY 2010 (ARRA): CSO 002 Orleans St Separation $326,920, CSO 012 Regulator $836,000, CSO 031 Oakwood In-Line Equalization $1,558,700 • FY 2012 CSO 014 Regulator $2,600,000	•

Wastewater Treatment Facility	•	•	• FY2006 Energy and Water Appropriations (Public Law 109-103) signed by the President on November 19, 2005: $750,000 for the Richmond CSO (required a $250,000 City match)	• FY 2006: Primary and secondary sedimentation tanks $11,000,000.00. •	•
Wastewater Collection System (Pumping and Separate Sanitary Sewer System)	•	•	•	• FY 2007: Gambles Hill $2,583,819.00	•

Chesapeake Bay / James River Tributary Strategy Nitrogen and Phosphorus Control	• Water Quality Improvement Fund Technical Assistance Grant approved by DEQ for $45,674,244.00 (to be adjusted based on actual construction costs) • WQIF Grant increased to $50,131,031.00	•	•	• FY 2008 - $22,000,000.00 • FY 2009 - $10,000,000.00 • FY 2010 - $20,000,000.00 • FY 2012 - $3,289,955.00	•
Green Project Reserve Program	• Clean Water Revolving Loan Fund for Green Pilot Projects for $450,000	•	•	• FY 2010- $225,000	• FY 2010- $225,000
Stormwater Improvements	•	•	•	• Virginia Water Facilities Revolving Loan Fund FY2013 $1,060,650	•